

Application Serial No. 10/581,182
Response to Office Action dated September 10, 2009

PATENT
Docket: CU-4848

REMARKS

At the time of mailing of the Office Action, claims 1-18 were pending, claim 16 was considered allowable and objected to for being dependent from a non-allowable claim, and claims 1-15 and 17-28 are rejected. The Applicant believes that this amendment is responsive to the Office Action and overcomes the rejections.

In the claims, the Applicant has cancelled claims 1-28 and added new claims 29-42. These new claims find support in the disclosure, and therefore, no new matter has been added. For instance support for claims 29-30 can be found in claims 1 and 2. Support for the coloring component being an iron and a titanium is supported by claim 6, and ¶[0126] and ¶[0188] (Example 2); the coloring component being nickel is supported by claim 7, and ¶[0134] and ¶[0190] (Example 3); the coloring component being a vanadium is supported by claim 8, and ¶[0143] and ¶[0191] (Example 4); and the coloring component being a cobalt is supported by claim 9, and ¶[0153] and ¶[0192] (Example 5).

Newly added claim 38 finds support in claim 19 and also the coloring component being an iron and a titanium is supported by claim 25, and ¶[0126] and ¶[0188] (Example 2); the coloring component being nickel is supported by claim 26, and ¶[0134] and ¶[0190] (Example 3); the coloring component being a vanadium is supported by claim 27, and ¶[0143] and ¶[0191] (Example 4); and the coloring component being a cobalt is supported by claim 28, and ¶[0153] and ¶[0192] (Example 5).

Of note is that claim 16, an allowable claim, is incorporated into new claim 33. The Applicant submits that since the new claims find support in the original disclosure, no new matter has been added. The amendments to the claims can be viewed in the Amendments section in the Listing of Claims beginning on page 4 of this paper.

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The specification of the application has also been amended to recite the language that the Examiner requested be included under the title section of the invention. (See Office Action page 2, section titled Specification.) The amendment to the specification can be viewed in the Amendments section of this paper beginning on page 3.

In the Office Action, the Examiner rejected claims 1-5, 7 and 9 (related to new claims 29-32) under 35 U.S.C. §102(b) as being anticipated by JP 40-26525; claims 19-24 (related to new claims 38-42) by JP 63-017297; and claim 6 (related to new claim 29) as anticipated by JP 59-152289.

The Applicant respectfully disagrees. Of note is that the Applicant has provided new claims herein that are fully supported by the original disclosure. The rejections of the claims will be discussed in terms of the new claims because the claims rejected have been cancelled.

Newly presented claims 29 and 30 recite that "wherein a coloring component is added into the artificial corundum crystal, wherein an aluminum compound raw material which is a basic component of the artificial corundum crystal is an aluminum oxide, wherein a raw material of the coloring component is an oxide of the coloring component, wherein an adding amount of the oxide of the coloring component is 1% or less by weight to a weight of the aluminum, oxide, and wherein the coloring component is an iron and a titanium, a nickel, a vanadium, or a cobalt."

These novel features of claims 29 and 30 provide that wherein the coloring component is an iron and titanium, the blue artificial corundum crystal is colored into vivid blue color as shown in ¶¶0126] and ¶¶0188] (Example 2). Wherein the coloring component is nickel, the yellow artificial corundum crystal is colored into a vivid yellow color as is shown in ¶¶0134] and ¶¶0190] (Example 3).

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In addition, wherein the coloring component is a vanadium, the alexandrite artificial corundum crystal is colored into an alexandrite color good in color-changeability as shown in ¶¶[0143] and ¶¶[0191] (Example 4). Finally, wherein of the coloring component is a cobalt, the green artificial corundum crystal is colored into a vivid green color as shown in ¶¶[0153] and ¶¶[0192] (Example 5).

These features, and therefore effects, of new claims 29 and 30 are not taught by JP 40-26525 or JP 59-152289. For instance, JP 59-152289 discloses adding a ferric oxide and a titanium dioxide to an aluminum oxide as coloring substances by 1wt% to 5 wt% respectfully to the total amount. In other words, JP 59-152289 teaches that the total amount of the coloring component added to the aluminum oxide is 2 wt% to 10 wt%. The Applicant respectfully submits, therefore, that at least for these reasons, claims 29-30 and dependant claims 31-32 are not anticipated by the references and are novel.

Regarding claims 38-42, the Applicant submits that these claims are likewise novel. Newly added claim 38 has similar characteristics and features, and attains similar effects to the artificial corundum crystals of new claims 29-32. The references JP 40-26525 and JP63-017297 are silent as to this combination of features found in the Applicants invention, and therefore, since not all of the features of new claims 38-42 are taught by the references, the Applicant submits that claims 38-42 are also not anticipated and are novel.

For instance, Example 1 of JP63-017297 teaches weighing and mixing an aluminum oxide and a chrome oxide by the ratio of 97:3 as to the adding amount of the coloring component. Clearly, neither reference teaches attaining an effect such that an artificial corundum crystal is colored into a vivid color as in the present invention.

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The Applicant submits, therefore, that since all of the features of newly added claims 29-32 and 38-42 are not taught by the alleged prior art, the claims are not anticipated thereby and are novel.

In the Office Action, the Examiner also rejected claims 8, 26, and 28 under 35 U.S.C. §103(a) as being unpatentable over JP 40-26525; and claims 25-28 as being unpatentable over reference JP 63-017297.

The Applicant respectfully disagrees.

Regarding the rejection, the Applicant submits that as discussed above, the references does not teach, disclose or suggest the features in new claims 29-32 and 38-42. It is well known that if a reference or combination of references does not teach, disclose or suggest all of the features of the invention, the invention is non-obvious. The references, in whole or in combination, do not teach, disclose, or suggest all of the features of claims 29-32 and 38-42. The Applicant submits that the invention as claimed in claims 29-42 and 38-42 is non-obvious and patentable.

The Examiner also rejected claims 1-4, 6-15 and 17-18 based on nonstatutory obviousness type double patenting over claims 17-19, 21, 23-27, and 31-35 of U.S. Patent No. 10/589,564.

Claims 1-9 have been redrafted into new claims 29-32. Moreover, allowable claim 16 has been reformulated into new claim 33. For the reasons presented herein, it is believed that the amendments made herein provide claims that are patentably distinct from Claims 17-19, 21, 23-27, and 31-35 of U.S. Patent No. 10/589,564. For instance, the features presented in new claims 29-32 provide an effect such that an artificial corundum crystal is colored into a vivid color. U.S. Patent No. 10/589,564 cannot attain such an effect, and in fact, is completely silent as to these features and effect.

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In addition, new claim 33 includes allowable subject matter from previously presented claim 16, and therefore, the Applicant respectfully submits that claim 33 and dependant claims 34-37 are likewise allowable.

CONCLUSIONS

The Applicant respectfully contends that all conditions of patentability are met in the pending claims. Applicant respectfully submits that this application should be in condition for allowance. Furthermore, Applicant respectfully requests favorable consideration.

Respectfully Submitted,



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